

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method of managing communications between a mobile device and a wireless network, comprising:

establishing a first general packet radio service (GPRS) mobile management (MM) context for the mobile device to enable communication with the wireless network;

terminating the first GPRS MM context while the mobile device is out of network coverage of any GPRS wireless network;

in response to the termination of the first GPRS MM context while the mobile device is out of network coverage of any GPRS wireless network, queuing a first set of data in a local data store associated with the first GPRS MM context, wherein the first set of data includes one or more information transfer data frames that include user data, the user data including at least one of email data, calendar data, voice mail data, and task item data;

making a decision to establish a second GPRS MM context to re-establish communication with the wireless network;

in response to the establishment of a second GPRS MM context, deleting the first set of data associated with the first GPRS MM context; and

queuing a second set of data in the local data store associated with the second GPRS MM context.

2. (Cancelled).

3. (Cancelled).

4. (Original) The method of claim 1, wherein the first set of data associated with the first GPRS MM context includes network control data.

5. (Original) The method of claim 4, wherein the first set of data associated with the first GPRS MM context includes a GPRS detach request.

6. (Original) The method of claim 5, wherein the first set of data associated with the first GPRS MM context includes a detach type.

7. (Original) The method of claim 6, wherein the detach type includes a GPRS detach.

8. (Original) The method of claim 5, wherein the first set of data associated with the first GPRS MM context includes a mobile device status flag.

9. (Original) The method of claim 1, wherein the first set of data associated with the first GPRS MM context includes a mobile device identifier.

10. (Original) The method of claim 8, wherein the first data set associated with the first GPRS MM context includes an international mobile subscriber identity (IMSI).

11. (Original) The method of claim 8, wherein the first set of data associated with the first GPRS MM context includes a packet temporary mobile subscriber identity (P-TMSI).

12. (Original) The method of claim 8, wherein the first set of data associated with the first GPRS MM context includes a temporary logical link identifier (TLLI).
13. (Original) The method of claim 1, wherein the second set of data associated with the second GPRS MM context includes a GPRS attach request.
14. (Original) The method of claim 13, wherein the second set of data associated with the second GPRS MM context includes an international mobile subscriber identity (IMSI).
15. (Original) The method of claim 13, wherein the second set of data associated with the second GPRS MM context includes a packet temporary mobile subscriber identity (P-TMSI).
16. (Original) The method of claim 13, wherein the second set of data associated with the second GPRS MM context includes an attach type.
17. (Original) The method of claim 1, wherein a decision to terminate the first GPRS MM context is made by a mobile device user.
18. (Original) The method of claim 1, wherein a decision to terminate the first GPRS MM context is made by a software module resident on the mobile device.

19. (Original) The method of claim 18, wherein the decision to terminate the first GPRS MM context made by the software module is based on the expiration of a software timer.

20. (Original) The method of claim 1, wherein the decision to establish the second GPRS MM context is made by a mobile device user.

21. (Original) The method of claim 1, wherein the decision to establish the second GPRS MM context is made by a software module resident on the mobile device.

22. (Cancelled)

23. (Cancelled)

24. (Currently Amended) A method for managing communications between a mobile device and a wireless network, comprising:

establishing a first packet data protocol (PDP) context for a mobile device to establish data communication with the wireless network;

terminating the first PDP context while the mobile device is out of network coverage with any wireless data network;

in response to the termination of the first PDP context while the mobile device is out of network coverage with any wireless data network, queuing a first set of data in a local data store associated with the first PDP context, wherein the first set of data includes one or more information transfer data frames that include user data, the user data including at least one of email data, calendar data, voice mail data, and task item data;

making a decision to establish a second PDP context for the mobile device to re-establish data communication with the wireless network;

in response to the establishment of the second PDP context, deleting the first set of data associated with the first PDP context; and

queuing a second set of data in the local data store associated with the second PDP context.

25. (Cancelled).

26. (Cancelled).

27. (Original) The method of claim 24, wherein the first set of data associated with the first PDP context includes network control data.

28. (Original) The method of claim 27, wherein the first set of data associated with the first PDP context includes a deactivate PDP context request.

29. (Original) The method of claim 24, wherein the first set of data associated with the first PDP context includes a mobile device identifier.

30. (Original) The method of claim 29, wherein the first set of data associated with the first PDP context includes an international mobile subscriber identity (IMSI).

31. (Original) The method of claim 29, wherein the first set of data associated with the first PDP context includes a packet temporary mobile subscriber identity (P-TMSI).

32. (Original) The method of claim 29, wherein the first set of data associated with the first PDP context includes a temporary logical link identifier (TLLI).

33. (Original) The method of claim 24, wherein the second set of data associated with the first PDP context includes an activate PDP context request.

34. (Original) The method of claim 33, wherein the second set of data associated with the second PDP context includes a network service point access identifier (NSAPI).

35. (Original) The method of claim 33, wherein the second set of data associated with the second PDP context includes a PDP value.

36. (Original) The method of claim 33, wherein the second data associated with the second PDP context comprises a PDP address.

37. (Original) The method of claim 24, wherein a decision to terminate the first PDP context is made by a mobile device user.

38. (Original) The method of claim 24, wherein a decision to terminate the first PDP context is made by a software module resident on the mobile device.

39. (Original) The method of claim 24, wherein the decision to establish the second PDP context is made by a mobile device user.

40. (Original) The method of claim 24, wherein the decision to establish the second PDP context is made by a software module resident on the mobile device.

41. (Currently Amended) A method of managing communications between a mobile device and a wireless network, comprising:

establishing a first communication link between the mobile device and the wireless network;

detecting that the mobile device is out-of-coverage with any wireless network;

terminating the first communication link while the mobile device is out-of-coverage with any wireless network;

in response to the termination of the first communication link while the mobile device is out-of-coverage with any wireless network, queuing data in the mobile device relating to the first communication link, wherein the data includes one or more information transfer data frames that include user data, the user data including at least one of email data, calendar data, voice mail data, and task item data;

receiving instructions to establish a second communication link between the mobile device and the wireless network; and

in response to the establishment of the second communication link, deleting from the mobile device the queued data relating to the first communication link;

the first and second communication links being to the same wireless network.

42. (Original) The method of claim 41, wherein the wireless network is a general packet radio service (GPRS) network.

43. (Original) The method of claim 41, wherein the first communication link includes a general packet radio service (GPRS) mobile management (MM) context for the mobile device.

44. (Original) The method of claim 41, wherein the first communication link includes a packet data protocol (PDP) context for the mobile device.

45. (Original) The method of claim 41, further comprising:

queuing data in the mobile device relating to the second communication link.

46. (Original) The method of claim 41, wherein the instructions to establish a second communication link are received from a mobile device user.

47. (Original) The method of claim 41, wherein the instructions to establish a second communication link are received from a program executing on the mobile device.

48. (Original) The method of claim 41, further comprising:

prior to terminating the first communication link, receiving instructions to terminate the first communication link.

49. (Original) The method of claim 48, wherein the instructions to terminate the first communication link are received from a mobile device user.

50. (Original) The method of claim 49, wherein the instructions to terminate the first communication link are received from a program executing on the mobile device.

51. (Original) A mobile device for use in a wireless network, comprising:

a memory subsystem;

a communication subsystem operable to transmit and receive data over the wireless network;

a processing subsystem coupled to the memory subsystem and the communication subsystem and operable to store and retrieve data in the memory subsystem, to execute instructions stored in the memory

subsystem, and to cause the communication subsystem to transmit and receive data over the wireless network; and

executable network management program code stored in the memory subsystem and comprising instructions operable to cause the mobile device to perform the method of claim 41 when executed by the processing subsystem.

52. (Original) The mobile device of claim 51, wherein the wireless network is a general packet radio service (GPRS) network.

53. (Original) The mobile device of claim 52, further comprising:

a subscriber identity module (SIM) coupled to the processing subsystem and operable to store network identification information for the mobile device;

wherein the processing subsystem is operable to retrieve the network identification information stored in the SIM.

54. (Original) The mobile device of claim 51 wherein the memory subsystem includes a flash memory device and a random access memory (RAM) device.

55. (Original) The mobile device of claim 54, wherein the network management program code is stored in the flash memory device.

56. (Original) The mobile device of claim 54, wherein the data is queued in the RAM device.